IN THE CLAIMS:

We claim:

1. A hybrid substrate comprising:
a substrate having a plurality of pockets patterned thereon; and
at least two different materials provided within a respective pocket of the plurality of pockets.

2. The hybrid substrate according to Claim 1, wherein the at least two different materials are approximately co-planar with a top surface of the substrate.

3. The hybrid substrate according to Claim 1, wherein the at least two different materials are bonded to the substrate.

4. The hybrid substrate according to Claim 1, wherein each of the at least two different materials is selected from the group consisting of GaAs, InP, silicon wafer, GaN-based high-electron mobility transistors (HEMTs), and optoelectronic devices.

5. The hybrid substrate according to Claim 1, wherein the substrate is selected from the group consisting of AlN, quartz, glass, ceramic, CVD diamond, and sapphire.

6. The hybrid substrate according to Claim 1, wherein the substrate is a high thermal conductive substrate.

7. The hybrid substrate according to Claim 1, wherein each of the plurality of pockets has a greater surface area than a cross-section surface area of the at least two different materials.

8. A method for fabricating a hybrid substrate comprising the steps of: patterning a substrate with a plurality of pockets; and providing a material within each of the plurality of pockets, wherein at least two materials provided within two respective pockets of the plurality of pockets are different.

9. The method according to Claim 8, further comprising the step of planarizing the materials provided within each of the plurality of pockets, such that a top surface of the materials is approximately co-planar with a top surface of the substrate.

10. The method according to Claim 9, wherein the planarizing step includes a chem-mech polishing step.

11. The method according to Claim 8, further comprising the step of providing a thermal conductivity layer between the substrate and the material provided within each of the plurality of pockets.

12. The method according to Claim 10, wherein the thermal conductivity layer is a CVD diamond layer.

13. The method according to Claim 8, further comprising the step of providing a layer of oxide over the material provided within each of the plurality of pockets.

14. The method according to Claim 13, wherein the layer of oxide is a layer of CVD oxide.

15. The method according to Claim 8, further comprising the step of providing an oxide on at least one surface of each material before the step of providing the material within each of the plurality of pockets.

16. The method according to Claim 8, further comprising the step of annealing to adhere the material provided within each of the plurality of pockets to the substrate.

17. The method according to Claim 8, further comprising the step of preparing the material provided within each of the plurality of pockets with the blister separation method.

18. The method according to Claim 8, further comprising the step of applying interconnect structures between the materials provided within the plurality of pockets.